

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

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Examiner: Dominic D. Saltarelli

Title: METHOD AND SYSTEM FOR AUTOMATED MONITORING OF QUALITY OF
SERVICE OF DIGITAL VIDEO MATERIAL DISTRIBUTION AND PLAY-OUT

MAIL STOP AMENDMENT

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

REPLY TO ACTION OF NOVEMBER 30, 2006

Claims 30-49 are pending in the application. Applicant respectfully requests reconsideration in view of the following remarks.

I. The § 103 Rejections

Claims 30-32, 35-42, and 45-49 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,319,453 (“Copriviza”) in view of U.S. Patent No. 5,826,165 (“Echeita”) and U.S. Patent No. 6,597,405 (“Iggulden”).

Claims 33-34 and 43-44 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Copriviza and Echeita, in further view of U.S. Patent No. 6,597,405 (“Iggulden”).

Applicant respectfully disagrees.

Claim 30 recites a system for monitoring quality of service of play out of a digital video program. In particular, the system includes a program source to encode each frame of the digital video program with a first unique signature that identifies the frame as being associated with the

digital video program. The system further includes a play-out device to compute statistics associated with play-out of the digital video program, in which the play-out device includes a signature engine to **generate a second unique signature** for each frame of the digital video program being played out; and a matching engine to **compare the second unique signature generated for each frame with a corresponding first unique signature encoded with the frame.**

A. Copriviza Fails To Disclose Generating a Second Unique Signature for each Frame of a Digital Video Program Being Played Out; and Comparing the Second Unique Signature Generated For Each Frame with a Corresponding First Unique Signature Encoded With the Frame

Copriviza discloses a system for monitoring the broadcast of video program material (see Abstract). To this end, Copriviza's system includes an encoding means that continuously encodes each contiguous frame of a video tape. Accordingly, each and every frame of the video program material is numbered or otherwise uniquely identified (col. 3, line 63 – col. 4, line 12). The Examiner recognizes that Copriviza fails to disclose a signature engine to generate a second unique signature for each frame of the digital video program being played out; and a matching engine to compare the second unique signature generated for each frame with a corresponding first unique signature encoded with the frame. The Examiner, however, asserts that these limitations, absent from Copriviza and recited in claim 30, are disclosed by Echeita.

B. Echeita Fails To Disclose Generating a Second Unique Signature for each Frame of a Digital Video Program Being Played Out; and Comparing the Second Unique Signature Generated For Each Frame with a Corresponding First Unique Signature Encoded With the Frame

Echeita discloses an advertisement reconciliation system (see Abstract), in which the advertisement reconciliation system inserts advertisement reconciliation data packets as one of the data packets of a direct broadcast satellite (DBS) data stream (col. 1, ll. 61-64). The reconciliation data packets include information corresponding to a date on which an advertisement was broadcast, a time at which the advertisement was broadcast, and a duration that the advertisement was broadcast (col. 2, ll. 4-11).

The Examiner cites column 7, lines 37-43 of Echeita (reproduced below) as representative of Echeita teaching that a meta-stream and a digital video program are linked by identifying signature data found in both the digital video program and the meta-stream.

The advertisement reconciliation data's synchronization with a particular commercial is preferably defined by providing proper identifying overhead information with ad reconciliation data that identifies the ad reconciliation data as part of the data packets that should be assembled whenever the associated commercial's data packets are assembled. Echeita, col. 7, ll. 37-43.

Applicant respectfully submits that providing identifying overhead information with advertisement reconciliation data (that links an advertisement data packet to a particular commercial) in a data stream is not equivalent to generating a second unique signature *for each frame* of the digital video program being played out.

Referring to FIG. 5, an example advertisement data stream is disclosed that includes nine data fields, one of which is a spot number data field. The spot number data field is a unique number that connects a commercial to the days the commercial was broadcast (col. 8, ll. 62-65),

and in the example of FIG. 5, the spot number is 465. Assuming that such a data stream (as shown in FIG. 5) is associated with each frame of a commercial, the spot number data field for each frame of the same commercial would have the *same* ID number, as each frame belongs to the *same* commercial. Therefore, Echeita fails to disclose generating a second unique signature for each frame of the digital video program being played out.

Because Echeita fails to disclose generating a second unique signature for each frame of the digital video program being played out, it follows that Echeita also fails to disclose a matching engine to compare the second unique signature generated for each frame with a corresponding first unique signature encoded with the frame. For example, Applicant's present invention includes a matching engine to compare the second unique signature generated for each frame with a corresponding first unique signature encoded with the frame to ensure that each frame of a given video data has played out correctly (see Specification, page 5, line 21 – page 5, line 3). In contrast, in Echeita's advertisement reconciliation system, reconciliation data is sent to a computer for a comparison of assembled reconciliation data with contractually agreed-upon parameters. Echeita fails to disclose in general that the computer analyzes advertisements on a frame-by-frame basis.

C. The claim has limitations not taught by either reference

Both Copriviza and Echeita fail to disclose a signature engine to generate a second unique signature for each frame of the digital video program being played out; and a matching engine to compare the second unique signature generated for each frame with a corresponding first unique signature encoded with the frame, as recited in claim 30. Consequently, the combination of Copriviza and Echeita cannot render claim 30 obvious.

Claims 31-39 depend from claim 30, and are allowable for at least those reasons that apply to claim 30.

D. Other Independent Claims

Independent claim 40 (and the claims that depend therefrom) incorporate limitations similar to claim 30, and are also allowable over the references cited above for reasons corresponding to those set forth with respect to claim 30.

Applicant submits that claims 30-49 are allowable over the references cited above, and are in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call the undersigned at the telephone number indicated below.

Respectfully submitted,
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Date

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